

What is claimed is:

1. A hermetically sealed housing comprising:
opposing, substantially planar first and second housing members coupled
5 together to form a hermetically sealed interior environment; and
means for establishing individual electrical conduction paths through the
first housing member.
2. The housing of claim 1, wherein the means for establishing
10 comprises an electrical feedthrough disposed within a corresponding aperture
formed in the first housing member, the feedthrough comprising:
an elongated electrically conductive pin having a proximal end which
projects into the interior environment, a distal end which projects
beyond the first housing member outside the interior environment,
15 and a medial portion supported within the corresponding aperture in
the first housing member; and
a first cantilevered spring contact which projects from a selected one of the
proximal and distal ends of the pin.
- 20 3. The housing of claim 2, wherein the feedthrough further comprises
a second cantilevered spring contact which projects from the remaining one of the
proximal and distal ends of the pin.
- 25 4. The housing of claim 2, wherein the feedthrough further comprises
a ring of low permeable, insulative material disposed within the aperture and which
which abuttingly surrounds the medial portion of the pin.
- 30 5. The housing of claim 4, wherein the feedthrough further comprises
a ring of conductive material which abuttingly surrounds the ring of insulative
material, wherein the ring of conductive material is attached to the first housing
member to form a localized hermetic seal.

6. The housing of claim 4, wherein the pin is placed into the aperture and the ring of low permeable, insulative material is subsequently molded into the aperture to form the feedthrough.

5 7. The housing of claim 4, wherein the ring of low permeable, insulative material is placed within the aperture and the pin is subsequently inserted through the ring of low permeable, insulative material to form the feedthrough.

10 8. The housing of claim 7, wherein a temperature of the pin is reduced to thermally shrink the pin, the pin is inserted into the ring of low permeable, insulative material and the pin is allowed to expand to form a localized hermetic seal.

15 9. The housing of claim 2, wherein the pin is characterized as a hollow, cylindrical tube and wherein a swaging operation is used to affix the pin within the aperture in the first housing member.

20 10. The housing of claim 9, wherein the pin is subsequently filled with a low permeable material.

11. The housing of claim 10, wherein the low permeable material comprises solder.

25 12. The housing of claim 1, wherein the means for establishing comprises a feedthrough assembly comprising:
an insertion member comprising a plate with a plurality of spaced apart apertures formed therethrough, the insertion member configured for attachment adjacent an aperture in the first housing member;
30 a corresponding plurality of elongated electrically conductive pins each having a proximal end which projects into the interior environment, a distal end which projects beyond the first housing member outside

the interior environment, and a medial portion supported within the
corresponding aperture in the insertion member; and
a corresponding plurality of first cantilevered spring contacts each of which
projects from a selected one of the proximal and distal ends of each
of the plurality of pins.

5

13. The housing of claim 12, wherein the insertion member is attached
to the first housing member along an outer periphery of the insertion member and
around the aperture in the first housing member to establish a hermetic seal
between the feedthrough assembly and the first housing member.

10

14. The housing of claim 12, wherein the feedthrough assembly further
comprises an insulating member through which extends an adjacent pair of the pins
configured to transmit a differential signal, the insulating member in turn
extending through the plate.

15

15. The housing of claim 1, wherein the housing is characterized as a
housing of a data storage device which houses a data storage medium, and wherein
the individual electrical conduction paths are configured to transmit signals used
during operation of said medium.

20

16. An electrical feedthrough for use in a hermetically sealed housing to provide an electrical conduction path from a sealed interior of the housing to an exterior environment, comprising:

an elongated electrically conductive pin having a proximal end configured to project into the interior environment, a distal end configured to project into the exterior environment, and a medial portion configured to be supported within a corresponding aperture in a first housing member; and

a first cantilevered spring contact affixed to and which projects from a selected one of the proximal and distal ends of the pin.

17. The feedthrough of claim 16, further comprising a second cantilevered spring contact affixed to and which projects from the remaining one of the proximal and distal ends of the pin.

18. The feedthrough of claim 16, further comprising a ring of low permeable, insulative material which abuttingly surrounds the medial portion of the pin.

19. The feedthrough of claim 18, further comprising a ring of conductive material which abuttingly surrounds the ring of insulative material, wherein the ring of conductive material is attached to the first housing member to form a localized hermetic seal.

20. The feedthrough of claim 19, further comprising a hat flange that extends radially outwardly from the ring of conductive material.

21. The feedthrough of claim 16, wherein the pin is characterized as a hollow, cylindrical tube and wherein a swaging operation is used to affix the pin within the aperture in the first housing member.

22. The feedthrough of claim 15 in combination with an insertion member comprising a plate with a feedthrough aperture in which the medial

portion of the pin is sealingly disposed to form a feedthrough assembly, the insertion member configured for attachment to the first housing member adjacent the central aperture in said housing member.

- 5 23. The feedthrough assembly of claim 22, further comprising an insulating member through which extends an adjacent pair of the pins to transmit a differential signal, the insulating member in turn extending through the plate.

24. A feedthrough assembly to establish a plurality of electrical connection paths through a hermetically sealed housing, comprising:

an insertion member comprising a plate with a plurality of spaced apart apertures formed therethrough, the insertion member configured for attachment adjacent an aperture in a first housing member;

a corresponding plurality of elongated electrically conductive pins each having a proximal end configured to project into an interior environment of the housing, a distal end which projects beyond the first housing member outside the interior environment, and a medial portion supported within the corresponding aperture in the insertion member; and

a corresponding plurality of first cantilevered spring contacts each of which projects from a selected one of the proximal and distal ends of each of the plurality of pins.

25. The feedthrough assembly of claim 24, further comprising a corresponding plurality of second cantilevered spring contacts each of which projects from the remaining one of the proximal and distal ends of each of the plurality of pins.

26. The feedthrough assembly of claim 24, in combination with the first housing member, wherein the insertion member is welded to the first housing member along an outer periphery of the insertion member and around the aperture in the first housing member to establish a hermetic seal between the feedthrough assembly and the first housing member.

27. The feedthrough assembly of claim 24, further comprising an insulating member through which extends an adjacent pair of the pins configured to transmit a differential signal, the insulating member in turn extending through the plate.